

## APPENDIX

### DRAFT IMPUTATION RULE

#### **1. Applicability of Section 32.27 to integrated local/long distance operations**

(a) Whenever a dominant provider of local exchange service that also provides long distance services has elected to offer long distance services through a separate affiliate, those transactions shall be subject to Section 32.27 of the Commission's rules.

(b) Whenever a dominant provider of local exchange service that also provides long distance services has elected to operate on an integrated basis, rather than providing its long distance services through a separate affiliate, then, for purposes of imputing costs to that provider's long distance services, the requirements of section 32.27 of the Commission's rules shall apply as though the long distance services were being provided through an affiliate.

(c) In no event shall the retail price of any long distance service being furnished by a dominant provider of local exchange service that also provides long distance services be set less than the sum of items 2(b)(1) through 2(b)(5) and 2(c) below, plus any incremental network or other costs required for the provision of long distance service.

#### **2. Imputation cost standard applicable to each category of cost**

(a) For purposes of imputation, a distinction is made among three types of costs – "direct costs," "joint costs," and "common overhead costs."

(1) "Direct costs" are incurred for the production of a specific product or service and are avoided in their entirety if such service is not provided. "Direct costs" may include both fixed components as well as variable components that increase (although not necessarily in direct proportion to) the quantity of the product or service that is being produced.

(2) "Joint costs" are incurred for the production of two or more products or services and not avoided as long as at least one such product or service continues to be produced.

(3) "Common overhead costs" relate to functions of a general business nature not specifically associated with any product or group of products. "Common overhead costs"

may include both fixed components as well as variable components that increase (although not necessarily in direct proportion to) the overall scale of the enterprise.

Direct costs and Joint costs shall be imputed into the price of long distance services furnished by a dominant provider of local exchange service in accordance with 2(b) following; Common Overhead costs shall be imputed into the price of long distance services furnished by a dominant provider of local exchange service in accordance with 2(c) following.

(b) For purposes of imputation for any long distance service furnished by a dominant provider of local exchange service that also provides long distance services, the following shall apply:

(1) *Access services.* For purposes of imputation, the tariff prices of all switched and special access services that would ordinarily be utilized by a section 272(a) affiliate or by a non-affiliated provider of interexchange services shall be utilized, whether or not such services are actually being utilized by the integrated provider in the specific network architecture applicable to an integrated dominant provider of local exchange service that also provides long distance services.

(2) *Non-access tariff services.* For purposes of imputation, the tariff prices applicable to all non-access local exchange services that would ordinarily be utilized by a section 272(a) affiliate or by a nonaffiliated provider of interexchange services shall be utilized, whether or not such services are actually being utilized by the integrated provider in the specific network architecture applicable to an integrated dominant provider of local exchange service that also provides long distance services.

(3) *Non-tariff services or functionality satisfying the Prevailing Company Pricing threshold set out at 47 CFR 32.27(d).* For purposes of imputation, the prevailing company prices applicable to all non-tariff services of a type or providing a functionality that would be offered to and, in some cases, utilized by a section 272(a) affiliate or by a nonaffiliated provider of interexchange services, where the level of utilization by nonaffiliated entities is sufficient to satisfy the Prevailing Company Pricing threshold set out at 47 CFR 32.27(d), the Prevailing Company Price as it would be set in accordance with 47 CFR 32.27(d) shall be utilized, whether or not the precise manner in which the integrated provider furnishes such functionality to itself is the same as that which is being offered to nonaffiliated entities.

(4) *Non-tariff services, functionality, information or the beneficial transfer of assets not satisfying the Prevailing Company Pricing threshold set out at 47 CFR 32.27(d).* Where non-tariff services, information or the beneficial transfer of assets of a type or providing a functionality that would be provided to a section 272(a) affiliate but whose usage by one or

more nonaffiliated providers of interexchange services is not sufficient to satisfy the Prevailing Company Pricing threshold set out at 47 CFR 32.27(d), for purposes of imputation the fair market value or the fully-distributed cost, whichever is greater, shall be used. The fair market value of such services shall be determined by a survey of prices of comparable services being offered on a stand-alone basis by firms ordinarily in the business of providing such services,

(5) *Non-tariff functionality or the beneficial transfer of information or assets not offered or available to nonaffiliated entities.* Where the production of long distance services on an integrated basis by a dominant local exchange service provider involves the use of non-tariff services, functionality, information, or the beneficial transfer of assets of a type or providing a functionality that would be provided to a section 272(a) affiliate but which is not required to be offered to nonaffiliated providers of interexchange services, imputation shall be based upon the fair market value or the fully-distributed cost, whichever is greater, of such service, functionality, information, or the beneficial transfer of assets, including in particular the fair market value of any customer proprietary network information that is used or referenced during the course of marketing, selling, or furnishing the long distance service. The fair market value of such services or functionality, including any customer proprietary network information, shall be based upon the cost that a provider of interexchange services that is not affiliated with a dominant incumbent local exchange carrier would reasonably incur in order to obtain or to self-provide such services, functionality and/or information.

(c) Common Overhead costs shall be imputed to long distance services furnished by a dominant provider of local exchange service on the basis of fully distributed cost.

### **3. Service-specific imputation required**

(a) A dominant provider of local exchange services that is required to impute costs to its long distance services pursuant to these rules must satisfy such imputation requirements separately with respect to each of its retail long distance services.

(b) Where such long distance service is included within any bundled offering that also includes any dominant local exchange services or service elements, the price of such long distance service to which the imputation requirement is to apply shall be determined by subtracting the retail price(s) of all component(s) of the bundle other than long distance from the total retail price of the bundle.

(c) Any bundle consisting of basic local exchange (dial tone) service, local calling, vertical features, intraLATA and interLATA toll, and any other components or features must be priced, in the aggregate, at a level sufficient to recover the aggregate of all tariff prices of all tariff services (or their functional equivalents) included within the bundle together with all other imputed and directly-assigned costs applicable to the bundled offering.

#### **4. Allocation of costs for upgrades or replacements**

(a) All investments in plant, facilities or equipment that will be jointly used by regulated and nonregulated services within five years of the date of acquisition and installation of that plant shall be presumed to be acquired primarily for the benefit of the nonregulated services, absent a showing to the contrary.

(b) At a minimum, any increase in net investment for the replacement assets over the remaining net book cost of the plant being replaced shall be allocated to and imputed into the price floor applicable to the nonregulated service.

#### **5. Cross-subsidization prohibited**

(a) In no event shall a dominant provider of local exchange service that also provides long distance services and that has elected to operate on an integrated basis rather than providing its competitive long distance services through a separate affiliate engage in actions that constitute a cross-subsidization of its competitive long distance services from its regulated services.

(b) For purposes of this rule, "cross-subsidization" shall be deemed to occur when in-region long distance services or nonregulated services, or telecommunications services that are treated as nonregulated services under these rules, are priced below cost by use of subsidization from customers of regulated services; or when a provider's in-region long distance services or non-regulated services derive benefits from the regulated operations without the regulated operations receiving just and reasonable compensation from in-region long distance services or nonregulated operations for the benefits derived by such in-region long distance services or nonregulated operations.

**Attachment 1**

**Regression Output**

**Analysis of Verizon and SBC Long Distance Market Share  
by State by Length of Time Since 271 Approval**

## SHAZAM OUTPUT

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FILE UPLOAD (120 CHARS MAX) FOR:regression(mktshr)2.csv
Content-Type: application/octet-stream
*****
Hello/Bonjour/Aloha/Howdy/G Day/Kia Ora/Konnichiwa/Buenos Dias/Nee Hau/Ciao
Welcome to SHAZAM - Version 9.0 - OCT 2003 SYSTEM=LINUX PAR= 781
|_SAMPLE 1 35,,,
|_READ state mktshr months comp,,,
  4 VARIABLES AND 35 OBSERVATIONS STARTING AT OBS 1

|_STAT state mktshr months comp / pcor pcov,,,
NAME      N      MEAN      ST. DEV      VARIANCE      MINIMUM      MAXIMUM
STATE      35      8.4571      5.4683      29.903      1.0000      17.000
MKTSHR      35      0.28985      0.15328      0.23495E-01  0.30000E-01  0.61000
MONTHS      35      16.956      11.014      121.32      2.0000      47.267
COMP      35      0.25714      0.44344      0.19664      0.0000      1.0000

CORRELATION MATRIX OF VARIABLES - 35 OBSERVATIONS

STATE      1.0000
MKTSHR      0.44149E-01  1.0000
MONTHS      -0.85538E-01  0.94997  1.0000
COMP      0.81127  0.38344  0.21916  1.00000
          STATE      MKTSHR      MONTHS      COMP

COVARIANCE MATRIX OF VARIABLES - 35 OBSERVATIONS

STATE      29.903
MKTSHR      0.37005E-01  0.23495E-01
MONTHS      -5.1519  1.6038  121.32
COMP      1.9672  0.26063E-01  1.0704  0.19664
          STATE      MKTSHR      MONTHS      COMP

|_OLS mktshr months / auxrsqr rstat dwpvalue,,,
REQUIRED MEMORY IS PAR= 13 CURRENT PAR= 781
OLS ESTIMATION
  35 OBSERVATIONS DEPENDENT VARIABLE= MKTSHR
...NOTE...SAMPLE RANGE SET TO: 1, 35

DURBIN-WATSON STATISTIC = 1.38109
DURBIN-WATSON POSITIVE AUTOCORRELATION TEST P-VALUE = 0.023734
NEGATIVE AUTOCORRELATION TEST P-VALUE = 0.976266
R-SQUARE OF MONTHS ON OTHER INDEPENDENT VARIABLES = 0.0000
R-SQUARE OF CONSTANT ON OTHER INDEPENDENT VARIABLES = 0.0000

R-SQUARE = 0.9024 R-SQUARE ADJUSTED = 0.8995
VARIANCE OF THE ESTIMATE-SIGMA**2 = 0.23617E-02
STANDARD ERROR OF THE ESTIMATE-SIGMA = 0.48598E-01
SUM OF SQUARED ERRORS-SSE= 0.77937E-01
MEAN OF DEPENDENT VARIABLE = 0.28985
LOG OF THE LIKELIHOOD FUNCTION = 57.2132

MODEL SELECTION TESTS - SEE JUDGE ET AL. (1985,P.242)

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AKAIKE (1969) FINAL PREDICTION ERROR - FPE = 0.24967E-02  
 (FPE IS ALSO KNOWN AS AMEMIYA PREDICTION CRITERION - PC)  
 AKAIKE (1973) INFORMATION CRITERION - LOG AIC = -5.9929  
 SCHWARZ (1978) CRITERION - LOG SC = -5.9040  
 MODEL SELECTION TESTS - SEE RAMANATHAN (1998, P.165)  
 CRAVEN-WAHBA (1979)  
 GENERALIZED CROSS VALIDATION - GCV = 0.25049E-02  
 HANNAN AND QUINN (1979) CRITERION = 0.25742E-02  
 RICE (1984) CRITERION = 0.25141E-02  
 SHIBATA (1981) CRITERION = 0.24813E-02  
 SCHWARZ (1978) CRITERION - SC = 0.27284E-02  
 AKAIKE (1974) INFORMATION CRITERION - AIC = 0.24964E-02

ANALYSIS OF VARIANCE - FROM MEAN				
	SS	DF	MS	F
REGRESSION	0.72089	1.	0.72089	305.239
ERROR	0.77937E-01	33.	0.23617E-02	P-VALUE
TOTAL	0.79883	34.	0.23495E-01	0.000

ANALYSIS OF VARIANCE - FROM ZERO				
	SS	DF	MS	F
REGRESSION	3.6614	2.	1.8307	775.147
ERROR	0.77937E-01	33.	0.23617E-02	P-VALUE
TOTAL	3.7393	35.	0.10684	0.000

VARIABLE	ESTIMATED	STANDARD	T-RATIO	PARTIAL STANDARDIZED ELASTICITY			
NAME	COEFFICIENT	ERROR	33 DF	P-VALUE	CORR.	COEFFICIENT	AT MEANS
MONTHS	0.13220E-01	0.7567E-03	17.47	0.000	0.950	0.9500	0.7734
CONSTANT	0.65687E-01	0.1523E-01	4.312	0.000	0.600	0.0000	0.2266

DURBIN-WATSON = 1.3811 VON NEUMANN RATIO = 1.4217 RHO = 0.25466  
 RESIDUAL SUM = -0.83267E-16 RESIDUAL VARIANCE = 0.23617E-02  
 SUM OF ABSOLUTE ERRORS = 1.3070  
 R-SQUARE BETWEEN OBSERVED AND PREDICTED = 0.9024  
 RUNS TEST: 16 RUNS, 15 POS, 0 ZERO, 20 NEG NORMAL STATISTIC = -0.7511  
 COEFFICIENT OF SKEWNESS = 0.5910 WITH STANDARD DEVIATION OF 0.3977  
 COEFFICIENT OF EXCESS KURTOSIS = 0.1949 WITH STANDARD DEVIATION OF 0.7778

JARQUE-BERA NORMALITY TEST- CHI-SQUARE(2 DF)= 1.8644 P-VALUE= 0.394

GOODNESS OF FIT TEST FOR NORMALITY OF RESIDUALS - 6 GROUPS  
 OBSERVED 0.0 5.0 15.0 10.0 4.0 1.0  
 EXPECTED 0.8 4.8 11.9 11.9 4.8 0.8  
 CHI-SQUARE = 2.0798 WITH 2 DEGREES OF FREEDOM, P-VALUE= 0.353

|\_OLS mktshr months comp / auxrsqr rstat dwpvalue,,,

REQUIRED MEMORY IS PAR= 13 CURRENT PAR= 781  
 OLS ESTIMATION  
 35 OBSERVATIONS DEPENDENT VARIABLE= MKTSHR  
 ...NOTE..SAMPLE RANGE SET TO: 1, 35

DURBIN-WATSON STATISTIC = 1.90484  
 DURBIN-WATSON POSITIVE AUTOCORRELATION TEST P-VALUE = 0.301984  
 NEGATIVE AUTOCORRELATION TEST P-VALUE = 0.698016  
 R-SQUARE OF MONTHS ON OTHER INDEPENDENT VARIABLES = 0.0480  
 R-SQUARE OF COMP ON OTHER INDEPENDENT VARIABLES = 0.0480  
 R-SQUARE OF CONSTANT ON OTHER INDEPENDENT VARIABLES = 0.0000

R-SQUARE = 0.9347      R-SQUARE ADJUSTED = 0.9306  
 VARIANCE OF THE ESTIMATE-SIGMA\*\*2 = 0.16302E-02  
 STANDARD ERROR OF THE ESTIMATE-SIGMA = 0.40376E-01  
 SUM OF SQUARED ERRORS-SSE= 0.52166E-01  
 MEAN OF DEPENDENT VARIABLE = 0.28985  
 LOG OF THE LIKELIHOOD FUNCTION = 64.2390

MODEL SELECTION TESTS - SEE JUDGE ET AL. (1985, P.242)

AKAIKE (1969) FINAL PREDICTION ERROR - FPE = 0.17699E-02  
 (FPE IS ALSO KNOWN AS AMEMIYA PREDICTION CRITERION - PC)  
 AKAIKE (1973) INFORMATION CRITERION - LOG AIC = -6.3372  
 SCHWARZ (1978) CRITERION - LOG SC = -6.2039

MODEL SELECTION TESTS - SEE RAMANATHAN (1998, P.165)

CRAVEN-WAHBA (1979)  
 GENERALIZED CROSS VALIDATION - GCV = 0.17830E-02  
 HANNAN AND QUINN (1979) CRITERION = 0.18525E-02  
 RICE (1984) CRITERION = 0.17988E-02  
 SHIBATA (1981) CRITERION = 0.17460E-02  
 SCHWARZ (1978) CRITERION - SC = 0.20215E-02  
 AKAIKE (1974) INFORMATION CRITERION - AIC = 0.17692E-02

ANALYSIS OF VARIANCE - FROM MEAN				
	SS	DF	MS	F
REGRESSION	0.74666	2.	0.37333	229.012
ERROR	0.52166E-01	32.	0.16302E-02	P-VALUE
TOTAL	0.79883	34.	0.23495E-01	0.000

ANALYSIS OF VARIANCE - FROM ZERO				
	SS	DF	MS	F
REGRESSION	3.6871	3.	1.2290	753.934
ERROR	0.52166E-01	32.	0.16302E-02	P-VALUE
TOTAL	3.7393	35.	0.10684	0.000

VARIABLE NAME	ESTIMATED COEFFICIENT	STANDARD ERROR	T-RATIO	P-VALUE	PARTIAL CORR.	STANDARDIZED COEFFICIENT	ELASTICITY AT MEANS
MONTHS	0.12659E-01	0.6443E-03	19.65	0.000	0.961	0.9096	0.7405
COMP	0.63633E-01	0.1600E-01	3.976	0.000	0.575	0.1841	0.0565
CONSTANT	0.58845E-01	0.1277E-01	4.607	0.000	0.631	0.0000	0.2030

DURBIN-WATSON = 1.9048      VON NEUMANN RATIO = 1.9609      RHO = 0.02208  
 RESIDUAL SUM = 0.13878E-16      RESIDUAL VARIANCE = 0.16302E-02  
 SUM OF ABSOLUTE ERRORS= 1.1193  
 R-SQUARE BETWEEN OBSERVED AND PREDICTED = 0.9347  
 RUNS TEST: 16 RUNS, 18 POS, 0 ZERO, 17 NEG      NORMAL STATISTIC = -0.8537  
 COEFFICIENT OF SKEWNESS = 0.4323 WITH STANDARD DEVIATION OF 0.3977  
 COEFFICIENT OF EXCESS KURTOSIS = -0.5434 WITH STANDARD DEVIATION OF 0.7778

JARQUE-BERA NORMALITY TEST- CHI-SQUARE (2 DF)= 1.5863 P-VALUE= 0.452

GOODNESS OF FIT TEST FOR NORMALITY OF RESIDUALS - 6 GROUPS  
 OBSERVED 0.0 7.0 10.0 11.0 6.0 1.0  
 EXPECTED 0.8 4.8 11.9 11.9 4.8 0.8  
 CHI-SQUARE = 2.6241 WITH 1 DEGREES OF FREEDOM, P-VALUE= 0.105  
 |\_stop,,,



7 May 2004

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## **US Wireline Services**

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**US Wireline 1Q04 Round-Up**

**Reason for Report: Industry Update**

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**Table 7: Long Distance Net Adds per Quarter**

(000s)	1Q02	2Q02	3Q02	4Q02	1Q03	2Q03	3Q03	4Q03	1Q04
BellSouth	n/a	147,000	269,000	586,000	928,000	856,000	654,000	520,000	636,000
Qwest	n/a	n/a	n/a	n/a	530,000	590,000	572,000	600,000	1,200,000
SBC	451,000	266,000	318,000	181,000	1,483,000	2,300,000	1,700,000	2,900,000	2,568,000
Verizon Comm.	800,000	791,000	804,000	566,000	710,000	1,415,000	1,294,000	736,000	1,007,000
<b>Total</b>	<b>1,251,000</b>	<b>1,204,000</b>	<b>1,391,000</b>	<b>1,333,000</b>	<b>3,651,000</b>	<b>5,161,000</b>	<b>4,220,000</b>	<b>4,756,000</b>	<b>5,411,000</b>

Source: Merrill Lynch research estimates and Company data.

# In-StatMDR

## Hear This: Broadband IP Telephony

May 2004

**Daryl Schoolar**

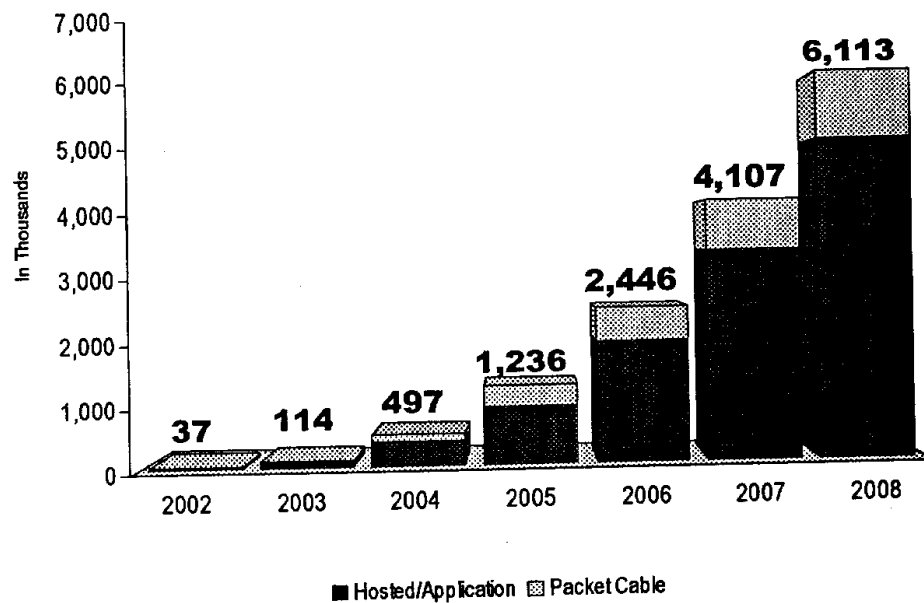
Service Provider Markets  
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Report No.: IN0401336TX

**In-Stat / MDR**

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Figure 6. US Broadband IP Telephony Subscribers (in Thousands), 2002 - 2008



Source: In-Stat/MDR, 4/04

Table 5. US Broadband IP Telephony Subscribers (in Thousands), 2002 - 2008

Subscribers in (k)	2002	2003	2004	2005	2006	2007	2008	CAGR
Total	37	114	497	1,236	2,446	4,107	6,113	134.2%
% Growth		208.1%	336.0%	148.7%	97.9%	67.9%	48.8%	
Hosted/Application	34	100	387	927	1,909	3,328	5,068	130.3%
% Growth		194.1%	287.0%	139.5%	105.9%	74.3%	52.3%	
Packet Cable	3	14	110	309	537	779	1,045	165.3%
% Growth		366.7%	685.7%	180.9%	73.8%	45.1%	34.1%	

Source: In-Stat/MDR, 04/2004

REDACTED FOR PUBLIC INSPECTION

ANALYSIS OF BOC LONG DISTANCE MARKET SHARE DATA

	Total CLEC lines	Percent of CLEC lines provided to Residential and Small Business customers	Estimate of Residential and Small Business Lines
	a	b	c=a*b
AL	234,330	38.00%	89,045
AK			
AZ	519,128	60.00%	311,477
AR			
CA	3,046,959	65.00%	1,980,523
CO	495,007	64.00%	316,804
CT	234,372	52.00%	121,873
DE	53,473	88.00%	47,056
DC	174,584	29.00%	50,629
FL	1,537,632	46.00%	707,311
GA	827,841	58.00%	480,148
HI			
ID	33,864	93.00%	31,494
IL	1,616,765	76.00%	1,228,741
IN	348,159	62.00%	215,859
IA	195,860	86.00%	168,440
KS	318,862	54.00%	172,185
KY	97,288	57.00%	55,454
LA	212,363	62.00%	131,665
ME	70,275	66.00%	46,382
MD	379,961	62.00%	235,576
MA	846,276	58.00%	490,840
MI	1,384,973	81.00%	1,121,828
MN	534,965	58.00%	310,280
MS	93,912	79.00%	74,190
MO	334,319	49.00%	163,816
MT	17,473	74.00%	12,930
NE	190,754	68.00%	129,713
NV	132,684	30.00%	39,805
NH	136,510	63.00%	86,001
NJ	1,009,996	66.00%	666,597
NM			
NY	3,478,918	68.00%	2,365,664
NC	443,600	29.00%	128,644
ND			
OH	754,020	67.00%	505,193
OK	217,854	56.00%	121,998
OR	167,965	70.00%	117,576
PA	1,413,458	53.00%	749,133
PR			
RI	167,714	75.00%	125,786
SC	192,934	43.00%	82,962
SD	49,243	95.00%	46,781
TN	346,060	36.00%	124,582
TX	2,266,028	61.00%	1,382,277
UT	235,170	57.00%	134,047
VT			
VI			
VA	738,479	74.00%	546,474
WA	386,104	48.00%	185,330
WV			
WI	526,343	59.00%	310,542
WY			

Source: FCC, IATD, *Local Competition Report: Status as of June 30, 2003*, released December, 2003. Column a from Table 10, Column b from Table 11. Note that this report will soon be updated, at which point AT&T anticipates filing an update to this data.